

U.S.N

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

**P.E.S. College of Engineering, Mandya - 571 401***(An Autonomous Institution affiliated to VTU, Belagavi)***Fifth Semester, Master of Computer Applications (MCA)****Semester End Examination; Dec. - 2019****Programming Using C# and .NET***Time: 3 hrs**Max. Marks: 100**Note: Answer FIVE full questions, selecting ONE full question from each unit.***UNIT - I**

- 1 a. What is the primary benefit of .NET framework? 4
- b. Describe the following components of the .NET framework architecture:
- i) Common Language Runtime ii) Common Type System 8
- iii) Common Language Specification iv) FCL and BCL
- c. Explain the requirements and the facilities provided by ADO.NET, WWF, WCF and WPF. 8
- 2 a. Describe Boxing and Unboxing in C# with an example. 4
- b. Show how arguments are passed as method parameters by using 'ref' and 'out' keywords? 8
- c. Develop a C# program to demonstrate 'is' and 'as' operator. 8

UNIT - II

- 3 a. Illustrate the usage of properties and Indexers with suitable example. 10
- b. Write a C# program to demonstrate the usage of partial methods in two files for declaring and defining them to generate the pay slip of an employee. 10
- 4 a. Write a program to read jagged array and display the sum of all the inner array. 10
- b. Illustrate Static class, Static property with example. 10

UNIT - III

- 5 a. With a suitable example, explain the following in C#:
- i) Interface and abstract class 10
- ii) Sealed class and Sealed method
- b. Write a program in C# to build a class which implements an interface. 10
- 6 a. What is a delegate? Write a C# program to demonstrate delegate. 10
- b. Design a custom exception for a stack class by writing Push, Pop, Display method and add appropriate exception for overflow and underflow. Show the helper classes to demonstrate its working. 10

UNIT - IV

- 7 a. Write a program for addition of two numbers by accepting from two text box and display the result in the form of using Button click Event. 10
- b. Explain the implementation of Combobox in C#. 10

- 8 a. Differentiate the following with suitable example:
 - i) Groupbox Control and Panel Control 10
 - ii) Anchor and Dock tags
- b. Write a C# program to display hidden text in Passwordbox. 10

UNIT - V

- 9 a. Demonstrate ADO.NET entity framework with diagram. 10
- b. Write a C# code to create data set from data adapter. 10
- 10 a. List the various properties of httpsession state and explain briefly. 10
- b. Demonstrate the usage of any five validation controls with necessary example. 10

* * *